



# Oracle Discoverer

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Louisville, Kentucky



# What is Discoverer?

- ◆ GUI query tool from Oracle Corp.
- ◆ Composed of a Client and a Server (Version 3.1)
- ◆ Tool that allows users to query a database without understanding the complete structure of the relational database.
- ◆ Designed for End Users like *you!*





# What is AQS?

- ◆ A repository for the Air Quality information reported by regional, state, local, and tribal agencies in accordance with Federal regulations.
- ◆ This latest version of AQS is composed of a relational database running on the EPA server named Canyon.



# Why use Discoverer?

- ◆ Ad hoc queries
- ◆ Calculations
- ◆ Graphs
- ◆ Formatting data
- ◆ Drill up/Drill down



# Terminology

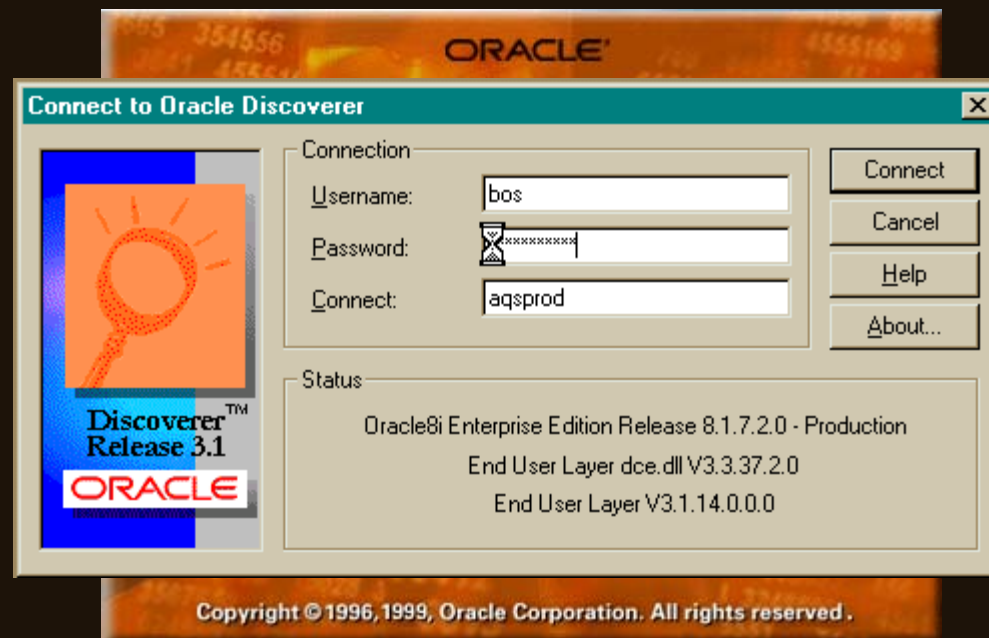
Columns	➡	Items
Rows	➡	Records
Tables	➡	Folders
Query results	➡	Worksheets

Workbook = Group of worksheets

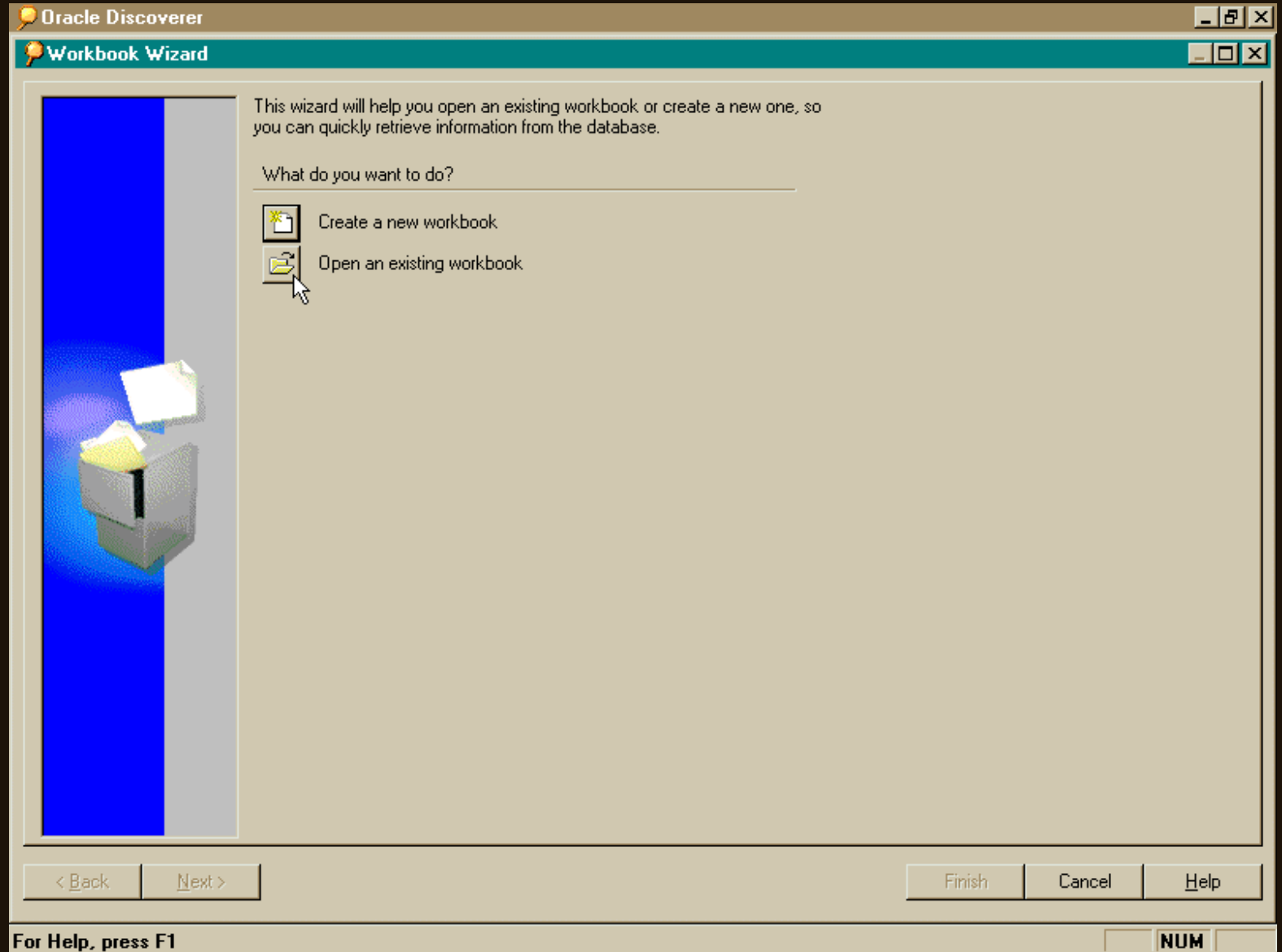
Business Area = Grouping of Tables

End User Layer = Interface to database

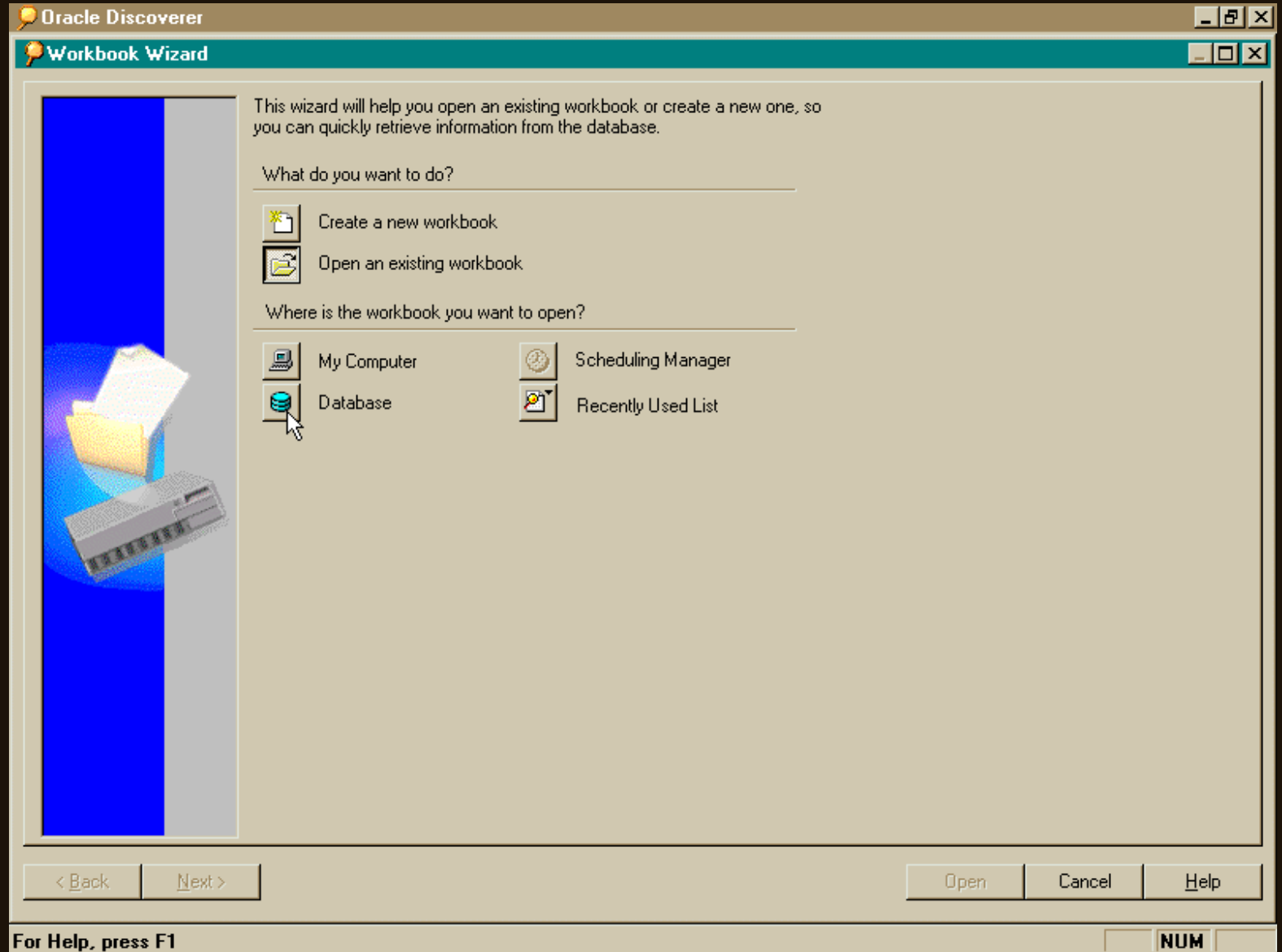
# Starting Discoverer





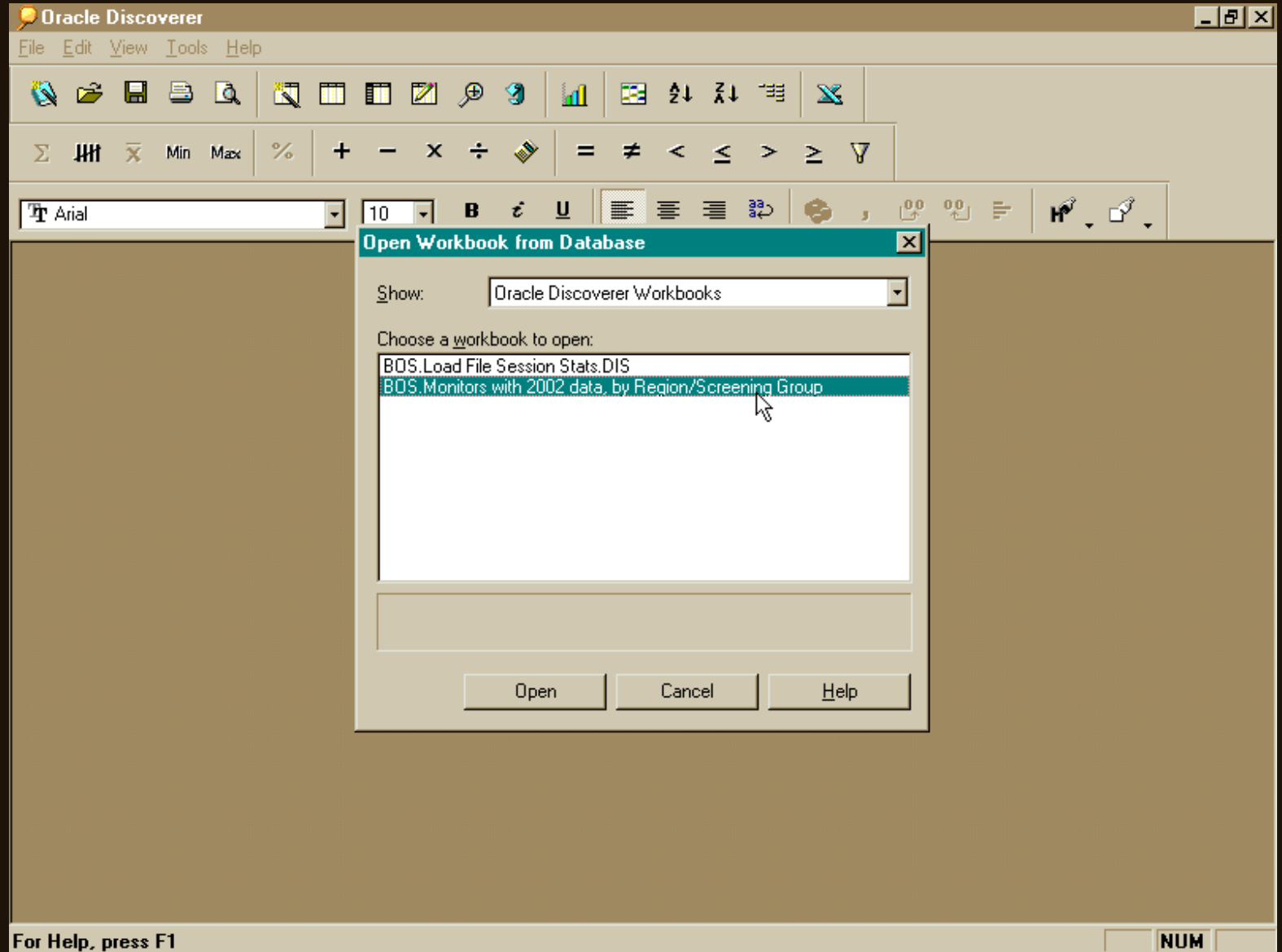


Run a query someone else created.

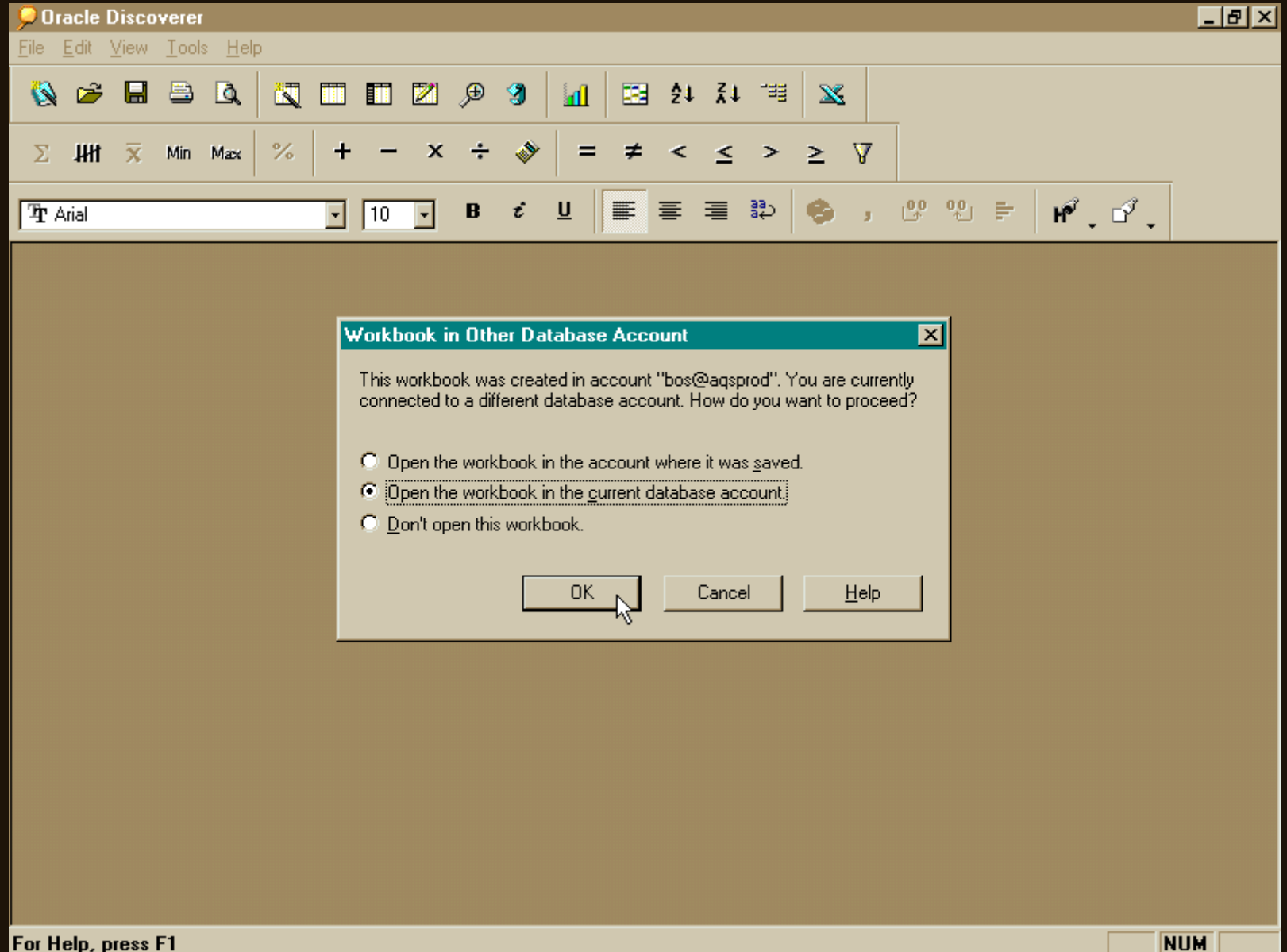


Tell Discoverer where to find the workbook.

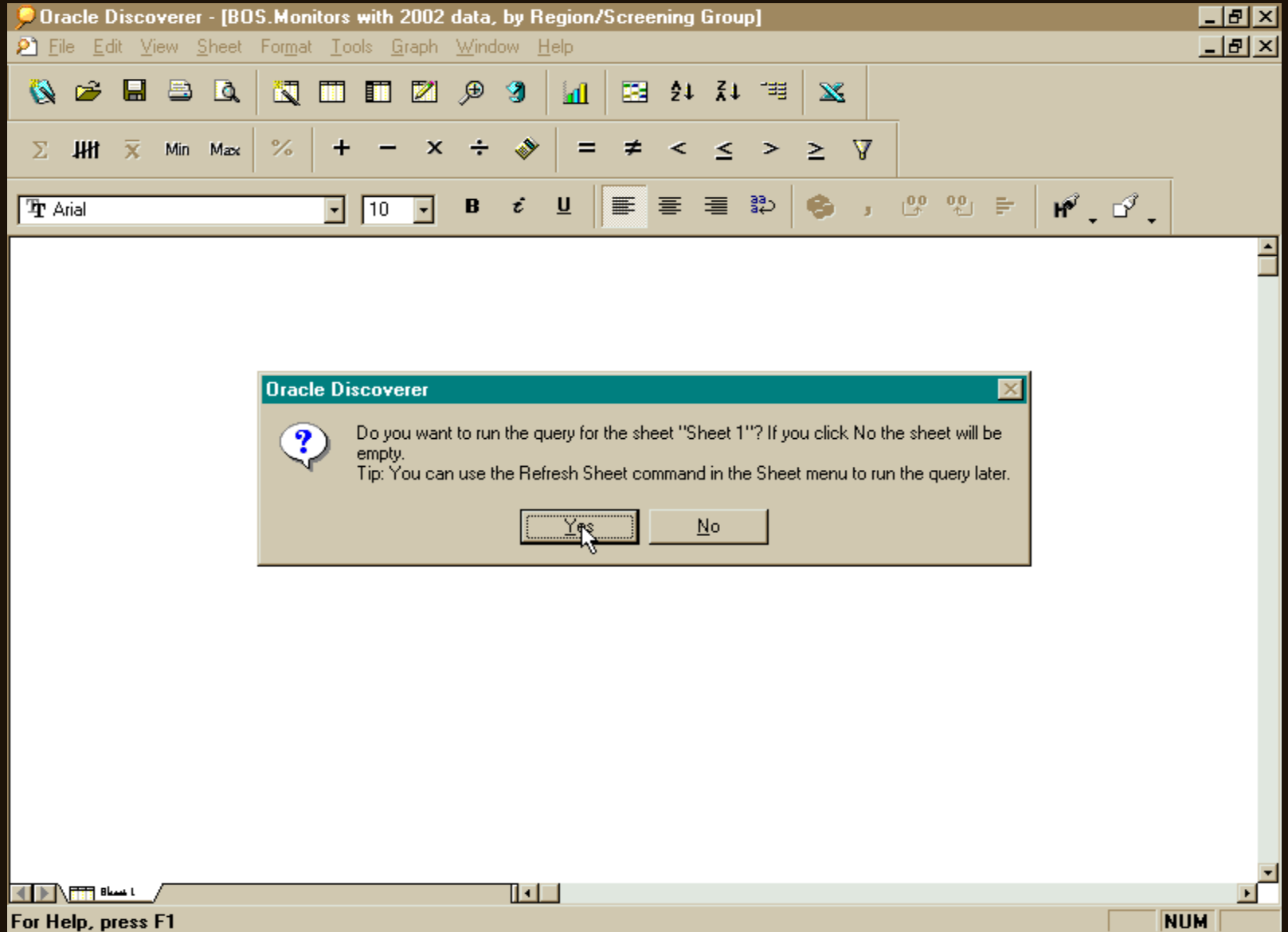




Choose from available pre-saved workbooks.



Open workbook in your own account.





Oracle Discoverer - [Monitors data in selected year, by Region/Screening Group]

File Edit View Sheet Format Tools Graph Window Help

Σ III X Min Max % + - x ÷ = ≠ < ≤ > ≥ ▾

Arial 10 B I U

**Parameter Wizard**

Please enter values for the following parameters:

Enter year to check: '2002'

Enter EPA Region Code: '04'

Enter State abbreviation: 'KY' ▾

Description:

Finish Cancel Help

Blank 1

For Help, press F1

NUM

This worksheet lets the user make some choices.

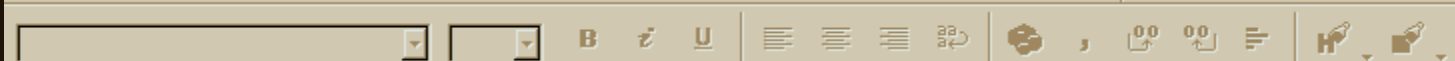


Oracle Discoverer - [BOS.Monitors with 2002 data, by Region/Screening Group]

File Edit View Sheet Format Tools Graph Window Help



Σ III X Min Max % + - x ÷ = ≠ < ≤ > ≥ ▾

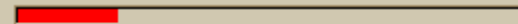


**Air Quality System**  
**Last Sampling Date Year = '2002', State Abbr = 'KY'**

Page Items:

Sheet 1: Progress

Running query...



4 seconds remaining.

Cancel

Sheet 1

Running query...

NUM

Oracle Discoverer - [BOS.Monitors with 2002 data, by Region/Screening Group]

File Edit View Sheet Format Tools Graph Window Help

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**Air Quality System**  
Last Sampling Date Year = '2002', State Abbr = 'KY'

Page Items: EPA Region Code: 04 ▼

	Screening Group Name	State Abbr	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Post D
► 1	KENTUCKY	KY	21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-21
► 2			21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-21
► 3			21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-21
► 4			21-013-0002-62101-1	OUTDOOR TEMPERATURE	14-MAR-2002	30-MAY-21
► 5			21-013-0002-68101-1	Sample Flow Rate- CV	25-FEB-2002	30-MAY-21
► 6			21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-21
► 7			21-013-0002-68103-1	Ambient Min Temperature	25-FEB-2002	30-MAY-21
► 8			21-013-0002-68104-1	Ambient Max Temperature	25-FEB-2002	30-MAY-21
► 9			21-013-0002-68105-1	Ambient Avg Temperature	25-FEB-2002	30-MAY-21
► 10			21-013-0002-68106-1	Sample Min Baro Pressure	25-FEB-2002	30-MAY-21
► 11			21-013-0002-68107-1	Sample Max Baro Pressure	25-FEB-2002	30-MAY-21
► 12			21-013-0002-68108-1	Sample Avg Baro Pressure	25-FEB-2002	30-MAY-21
► 13			21-013-0002-68109-1	Elapsed Sample Time	25-FEB-2002	30-MAY-21
► 14			21-013-0002-81102-1	PM10 Total 0-10um	25-FEB-2002	30-MAY-21
► 15			21-013-0002-88101-1	PM2.5 - Local Conditions	25-FEB-2002	30-MAY-21

NUM

Results.

Oracle Discoverer - [BOS.Monitors with 2002 data, by Region/Screening Group]

File Edit View Sheet Format Tools Graph Window Help

New... Ctrl+N  
 Open... Ctrl+O  
 Close  
 Save Ctrl+S  
 Save As...  
 Schedule...  
 Page Setup...  
 Print Preview  
 Print... Ctrl+P  
 Send...  
 Import SQL...  
 Export...  
 Manage Workbooks  
 Connect to Database...  
 1 Monitors with 2002 data, by Region:Screening Group:tlk@aqspod  
 2 Monitors data in selected year, by Region:Screening Group:bos@aqspod  
 3 Monitors data in selected year, by Region:bos@aqspod  
 4 Monitors with 2002 data, by Region:Screening Group:bos@aqspod  
 Exit

Parameter Desc Last Sampling Date Last Raw Post D

Parameter Desc	Last Sampling Date	Last Raw Post D
PEED	31-MAR-2002	16-MAY-21
DIRECTION	31-MAR-2002	16-MAY-21
OR TEMPERATURE	14-MAR-2002	30-MAY-21
Flow Rate- CV	25-FEB-2002	30-MAY-21
Volume	25-FEB-2002	30-MAY-21
Min Temperature	25-FEB-2002	30-MAY-21
Max Temperature	25-FEB-2002	30-MAY-21
Ambient Avg Temperature	25-FEB-2002	30-MAY-21
Sample Min Baro Pressure	25-FEB-2002	30-MAY-21
Sample Max Baro Pressure	25-FEB-2002	30-MAY-21
Sample Avg Baro Pressure	25-FEB-2002	30-MAY-21
Elapsed Sample Time	25-FEB-2002	30-MAY-21
PM10 Total 0-10um	25-FEB-2002	30-MAY-21
PM2.5 - Local Conditions	25-FEB-2002	30-MAY-21

Exports data from the active workbook to another file format NUM

Ways to save these results.

Oracle Discoverer - [BOS.Monitors with 2002 data, by Region/Screening Group]

File Edit View Sheet Format Tools Graph Window Help

Σ III X Min Max % + - x ÷ = ≠ < ≤ > ≥ ∇

Page Items: EPA Re

Screening (

1 KENTUCKY

2

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10

11 21-013-0002-68107-1 Sample Max Baro Pressure 25-FEB-2002 30-MAY-21

12 21-013-0002-68108-1 Sample Avg Baro Pressure 25-FEB-2002 30-MAY-21

13 21-013-0002-68109-1 Elapsed Sample Time 25-FEB-2002 30-MAY-21

14 21-013-0002-81102-1 PM10 Total 0-10um 25-FEB-2002 30-MAY-21

15 21-013-0002-88101-1 PM2.5 - Local Conditions 25-FEB-2002 30-MAY-21

For Help, press F1

NUM

**Export: Step 1**

What do you want to export?

- ☒ Current Sheet
- ☐ All Sheets
- ☐ Selection
- ☐ Graph

What export format do you want?

Microsoft Excel Workbook (\*.xls)

Where do you want to save the file?

D:\AQSConf2002\KYmonswith2002data.xls

Browse...

Finish Cancel Help

Saving results as a spreadsheet.





Microsoft Excel - KYmonswith2002data.xls

File Edit View Insert Format Tools Data Window Help Acrobat

MS Sans Serif 10 B I U

Sheet 1

	A	B	C	D	E	F	G
1	Air Quality System Last Sampling Date Year = '2002', State Abbr = 'KY'						
2							
3	EPA Region Code:04						
4							
5	Screening Group				Last Sampling Date	Last Raw Data Post Date	
6	Name	State	Monitor ID	Parameter Desc			
7	KENTUCKY	KY	21-013-0002-44201-1	Ozone	31-Mar-02	15-May-02	
8			21-013-0002-61101-1	WIND SPEED	31-Mar-02	16-May-02	
9			21-013-0002-61102-1	WIND DIRECTION	31-Mar-02	16-May-02	
10			21-013-0002-62101-1	OUTDOOR TEMPERATURE	14-Mar-02	30-May-02	
11			21-013-0002-68101-1	Sample Flow Rate- CV	25-Feb-02	30-May-02	
12			21-013-0002-68102-1	Sample Volume	25-Feb-02	30-May-02	
13			21-013-0002-68103-1	Ambient Min Temperature	25-Feb-02	30-May-02	
14			21-013-0002-68104-1	Ambient Max Temperature	25-Feb-02	30-May-02	
15			21-013-0002-68105-1	Ambient Avg Temperature	25-Feb-02	30-May-02	
16			21-013-0002-68106-1	Sample Min Baro Pressure	25-Feb-02	30-May-02	
17			21-013-0002-68107-1	Sample Max Baro Pressure	25-Feb-02	30-May-02	
18			21-013-0002-68108-1	Sample Avg Baro Pressure	25-Feb-02	30-May-02	
19			21-013-0002-68109-1	Elapsed Sample Time	25-Feb-02	30-May-02	
20			21-013-0002-81102-1	PM10 Total 0-10um	25-Feb-02	30-May-02	
21			21-013-0002-88101-1	PM2.5 - Local Conditions	25-Feb-02	30-May-02	
22			21-015-0003-44201-1	Ozone	31-Mar-02	15-May-02	
23			21-019-0002-81102-1	PM10 Total 0-10um	25-Feb-02	30-May-02	
24			21-019-0017-42101-1	Carbon Monoxide	31-Mar-02	15-May-02	

Enter NUM

Saved spreadsheet.

Monitors with 2002 data, by Region/Screening Group Sheet 1 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail

Address D:\AQSCConf2002\KYmonitorswith2002data.htm Go Links

**Air Quality System**  
**Last Sampling Date Year = '2002', State Abbr = 'KY'**

Page Items: EPA Region Code: 04

Screening Group Name	State Abbr	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date
KENTUCKY	KY	21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-2002
		21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002
		21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002
		21-013-0002-62101-1	OUTDOOR TEMPERATURE	14-MAR-2002	30-MAY-2002
		21-013-0002-68101-1	Sample Flow Rate- CV	25-FEB-2002	30-MAY-2002
		21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-2002
		21-013-0002-68103-1	Ambient Min Temperature	25-FEB-2002	30-MAY-2002
		21-013-0002-68104-1	Ambient Max Temperature	25-FEB-2002	30-MAY-2002
		21-013-0002-68105-1	Ambient Avg Temperature	25-FEB-2002	30-MAY-2002
		21-013-0002-68106-1	Sample Min Baro Pressure	25-FEB-2002	30-MAY-2002
		21-013-0002-68107-1	Sample Max Baro Pressure	25-FEB-2002	30-MAY-2002
		21-013-0002-68108-1	Sample Avg Baro Pressure	25-FEB-2002	30-MAY-2002
		21-013-0002-68109-1	Elapsed Sample Time	25-FEB-2002	30-MAY-2002
		21-013-0002-81102-1	PM10 Total 0.10um	25-FEB-2002	30-MAY-2002

Done My Computer

Exported to HTML. [See whole html file](#)

Air Quality System  
Last Sampling Date Year = '2002', State Abbr = 'KY'

EPA Region Code: 04

	Screening Group Name	State Abbr	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date
1	KENTUCKY	KY	21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-2002
2			21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002
3			21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002
4			21-013-0002-62101-1	OUTDOOR TEMPERATURE	14-MAR-2002	30-MAY-2002
5			21-013-0002-68101-1	Sample Flow Rate- CV	25-FEB-2002	30-MAY-2002
6			21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-2002
7			21-013-0002-68103-1	Ambient Min Temperature	25-FEB-2002	30-MAY-2002
8			21-013-0002-68104-1	Ambient Max Temperature	25-FEB-2002	30-MAY-2002
9			21-013-0002-68105-1	Ambient Avg Temperature	25-FEB-2002	30-MAY-2002
10			21-013-0002-68106-1	Sample Min Baro Pressure	25-FEB-2002	30-MAY-2002
11			21-013-0002-68107-1	Sample Max Baro Pressure	25-FEB-2002	30-MAY-2002
12			21-013-0002-68108-1	Sample Avg Baro Pressure	25-FEB-2002	30-MAY-2002
13			21-013-0002-68109-1	Elapsed Sample Time	25-FEB-2002	30-MAY-2002
14			21-013-0002-81102-1	PM10 Total 0-10um	25-FEB-2002	30-MAY-2002
15			21-013-0002-88101-1	PM2.5 - Local Conditions	25-FEB-2002	30-MAY-2002
16			21-015-0003-44201-1	Ozone	31-MAR-2002	15-MAY-2002
17			21-019-0002-81102-1	PM10 Total 0-10um	25-FEB-2002	30-MAY-2002
18			21-019-0017-42101-1	Carbon Monoxide	31-MAR-2002	15-MAY-2002
19			21-019-0017-42401-1	Sulfur Dioxide	31-MAR-2002	15-MAY-2002
20			21-019-0017-42601-1	NITRIC OXIDE	31-MAR-2002	15-MAY-2002
21			21-019-0017-42602-1	Nitrogen Dioxide	31-MAR-2002	15-MAY-2002
22			21-019-0017-44201-1	Ozone	31-MAR-2002	15-MAY-2002
23			21-019-0017-68101-1	Sample Flow Rate- CV	28-FEB-2002	30-MAY-2002
24			21-019-0017-68102-1	Sample Volume	28-FEB-2002	30-MAY-2002
25			21-019-0017-68103-1	Ambient Min Temperature	28-FEB-2002	30-MAY-2002
26			21-019-0017-68104-1	Ambient Max Temperature	28-FEB-2002	30-MAY-2002
27			21-019-0017-68105-1	Ambient Avg Temperature	28-FEB-2002	30-MAY-2002
28			21-019-0017-68106-1	Sample Min Baro Pressure	28-FEB-2002	30-MAY-2002
29			21-019-0017-68107-1	Sample Max Baro Pressure	28-FEB-2002	30-MAY-2002

BOS.Monitors with 2002 data, by Region/Screening Group

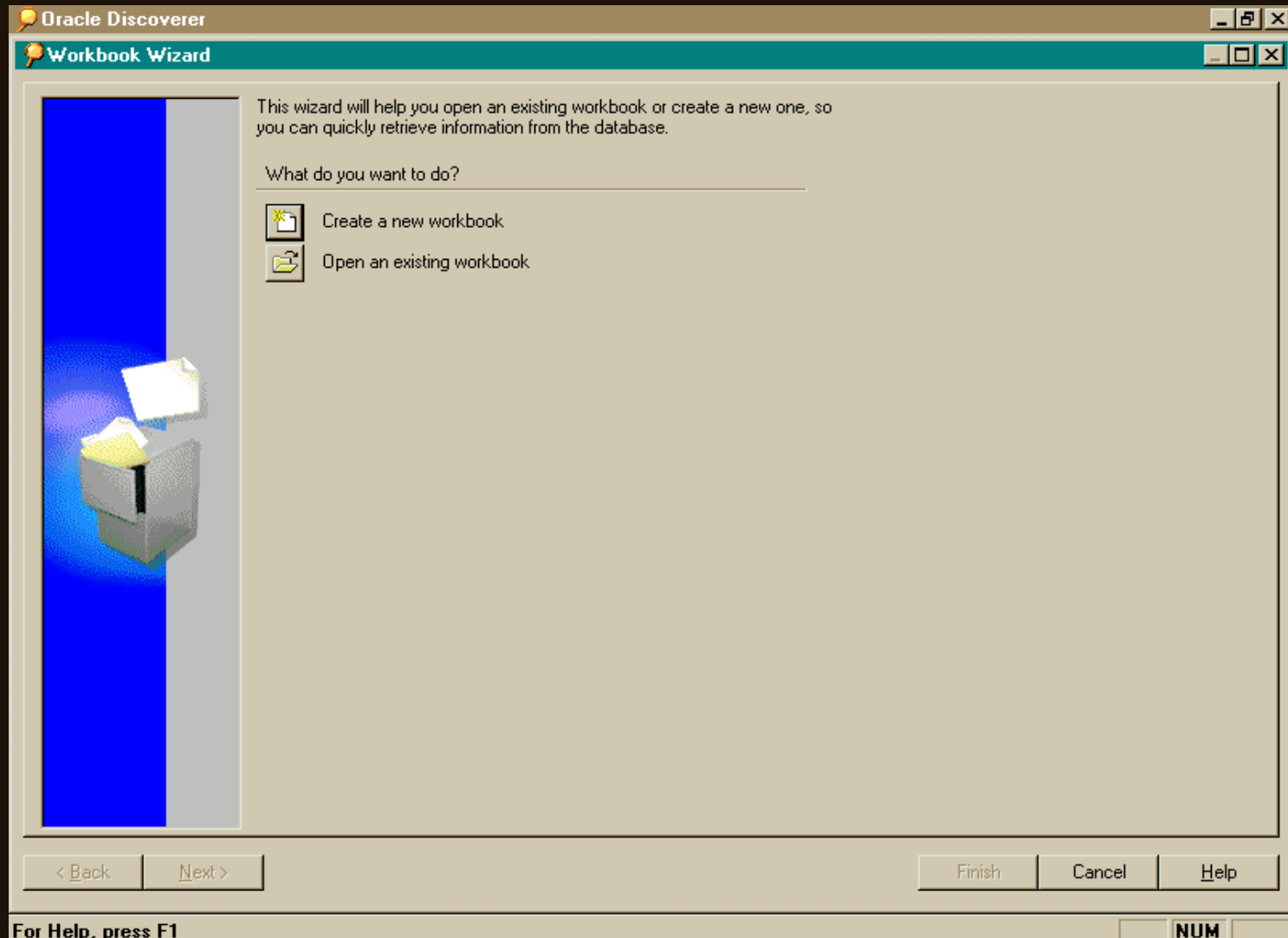
14-JUN-02 05:59:14 PM

Page 1 of 32



PDF created by printing to PDF printer.

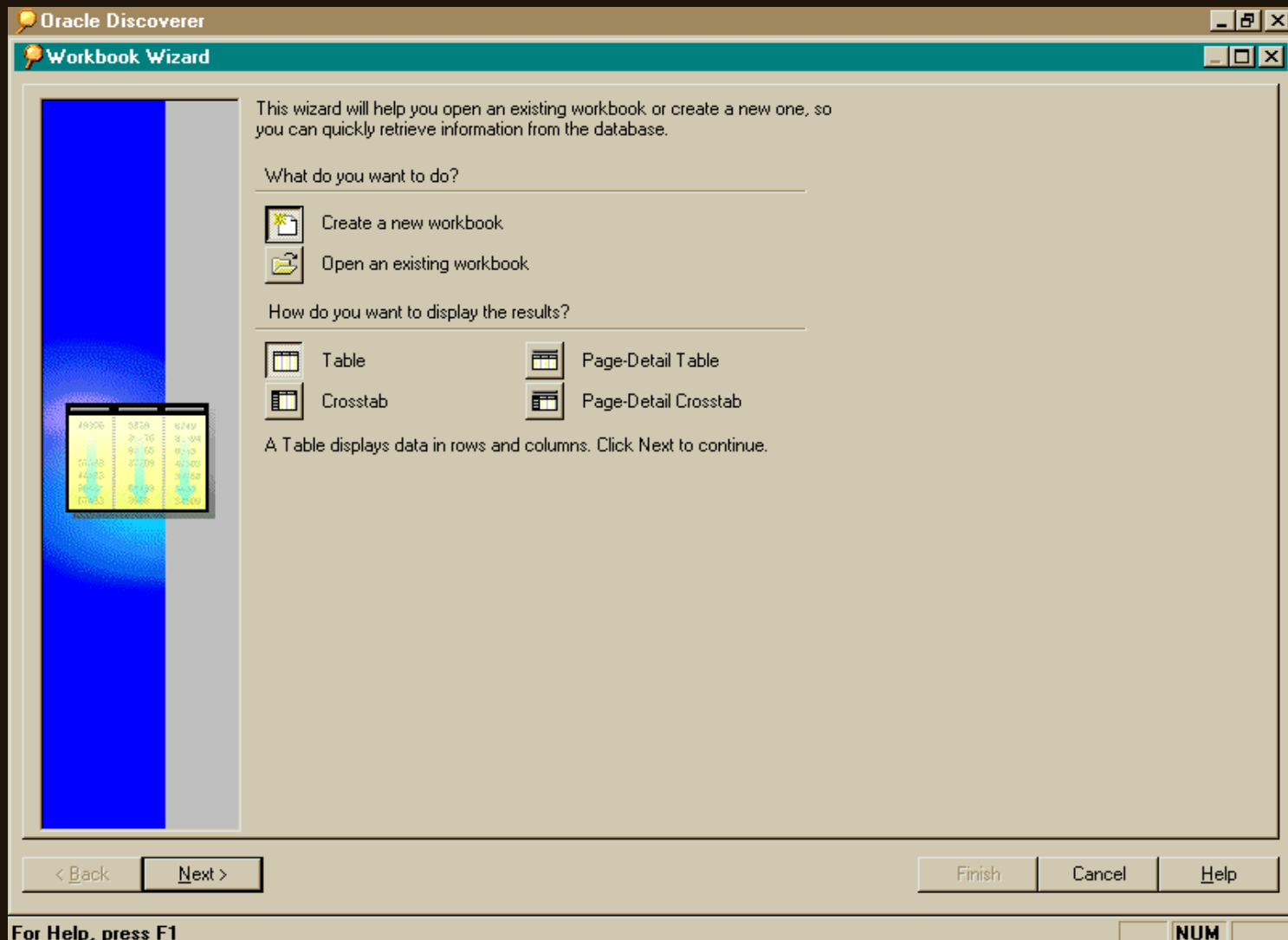
# Building your own worksheet



Create a new workbook. (File, New if you've already looked at one.)

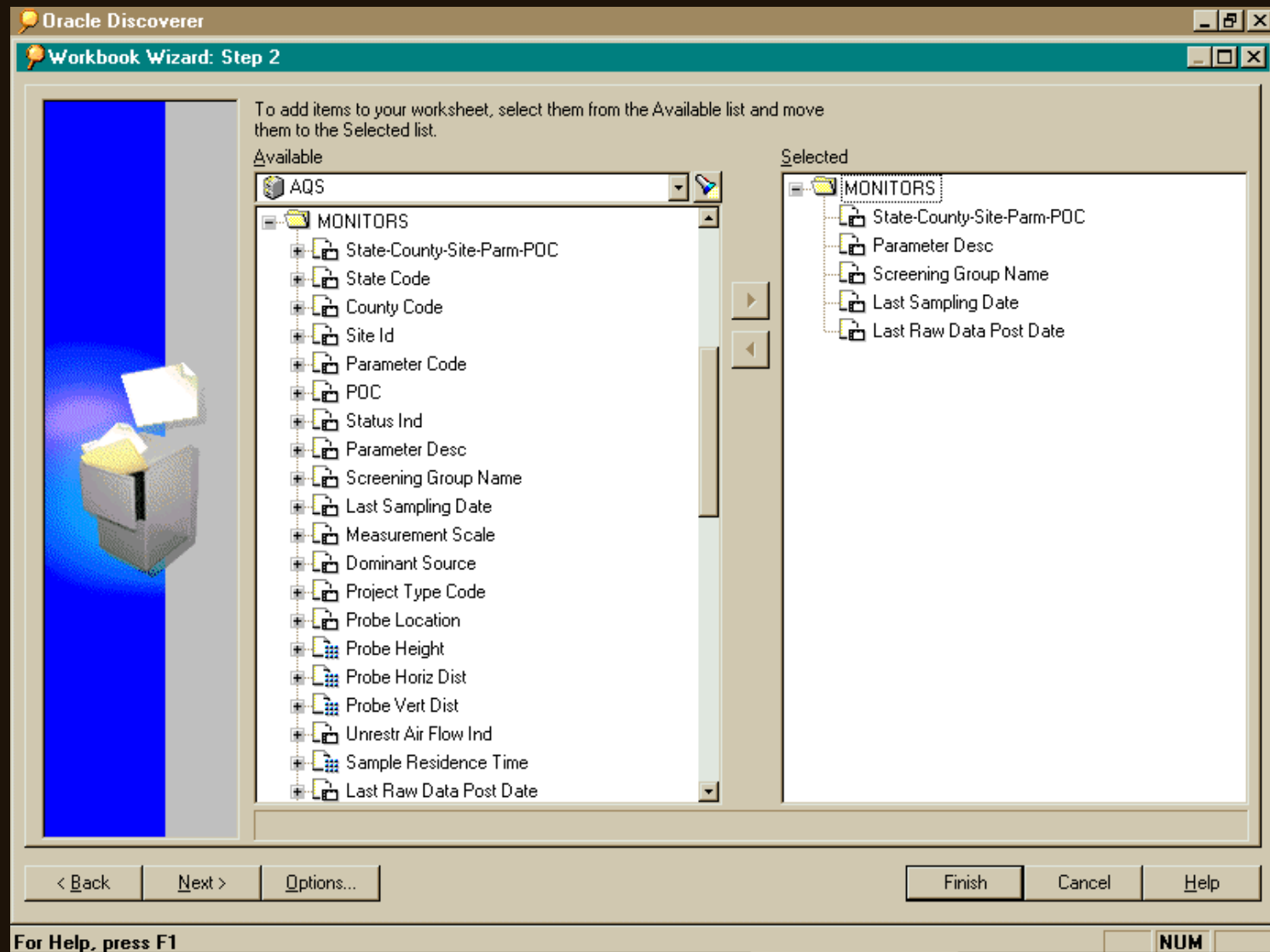


# Building your own worksheet, cont'd



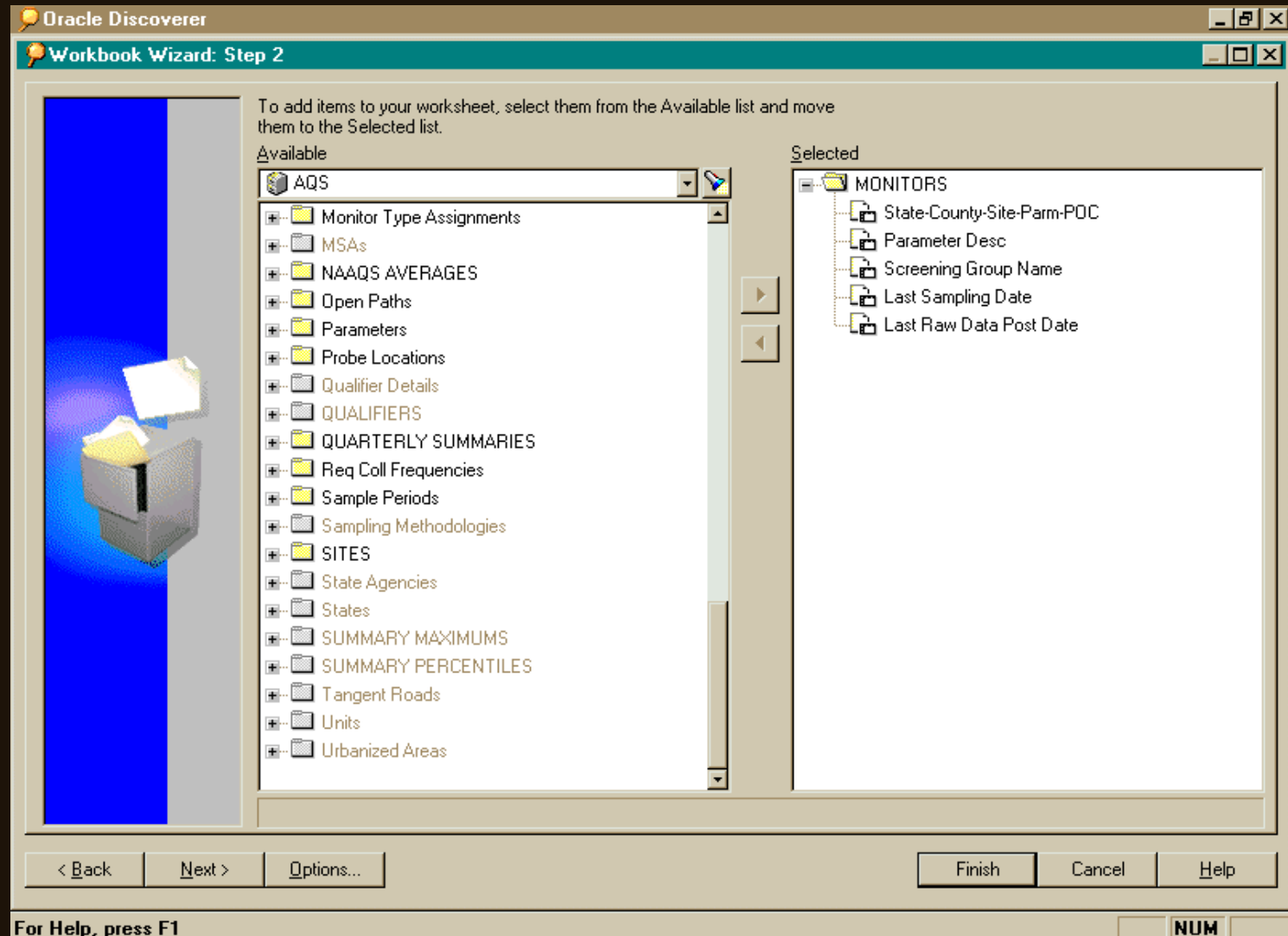
Choose type of display.

# Building your own worksheet, cont'd



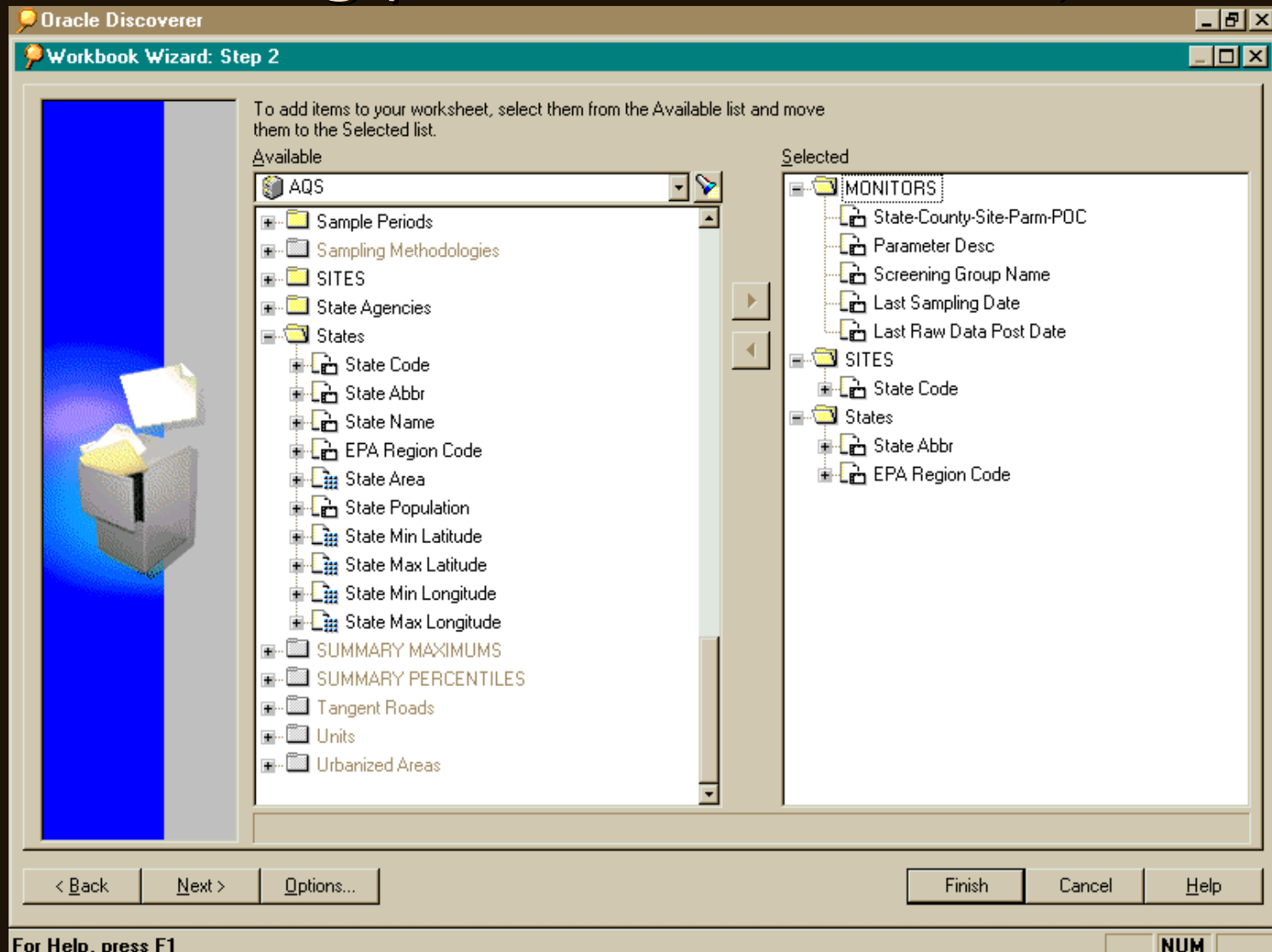
Select the items to display.

# Building your own worksheet, cont'd



Once items are selected, items that are not linked are unavailable.

# Building your own worksheet, cont'd



New selections make additional items available.

Selecting an item from SITES made States folder available.



# Building your own worksheet, cont'd

Next, decide if you'll have page items and if you want to hide any duplicate rows.

Oracle Discoverer

Workbook Wizard: Step 3

To change the layout of items in your worksheet, click and drag them to the desired location.

☒ Show Page Items ☐ Hide Duplicate Rows

Page Items: EPA Region Code

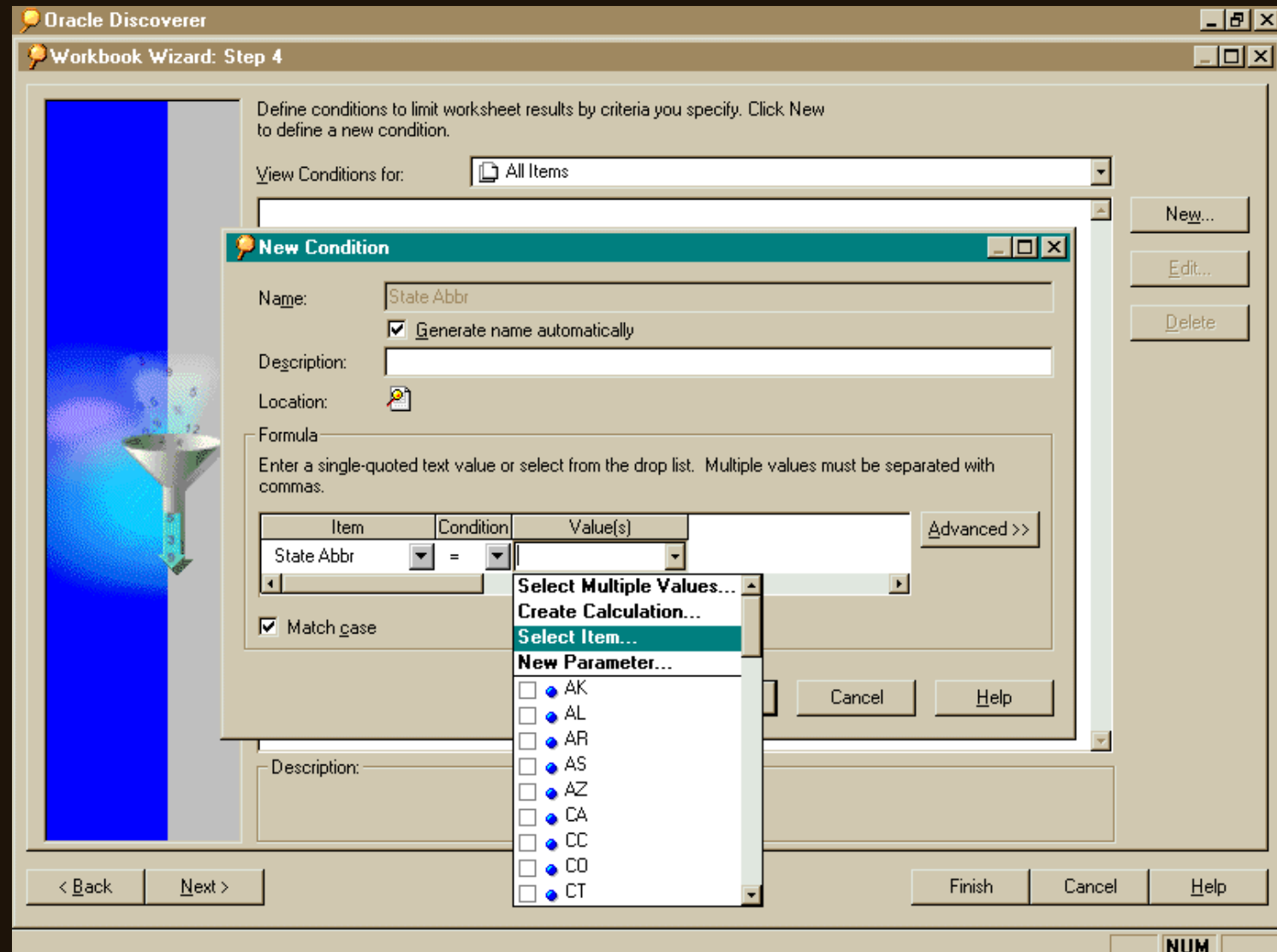
	State-County-Site-Param-POC	Parameter Desc	Screening Group Name	Last Sampling Date	Last Raw Data Post Date	Stat
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

< Back Next > Finish Cancel Help

NUM

Selecting EPA Region Code as a page item will put data from each region on a separate page.

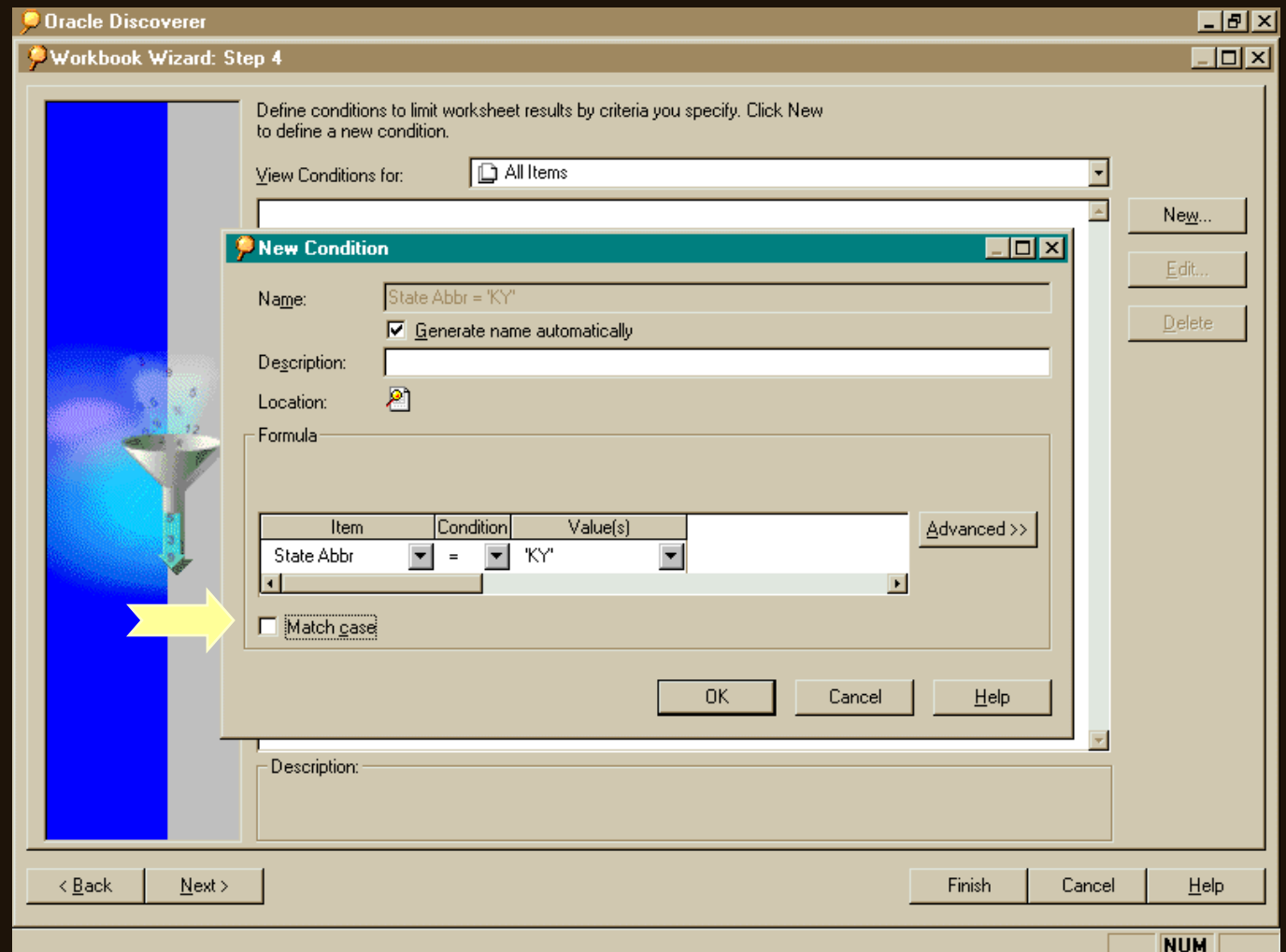
# Building your own worksheet, cont'd



Are there conditions you want to set?  
Select the item to use to restrict your query.

# Building your own worksheet, cont'd

If you're not sure about upper or lower case, uncheck the "Match case" box.



Oracle Discoverer  
Workbook Wizard: Step 4

Define conditions to limit worksheet results by criteria you specify. Click New to define a new condition.

View Conditions for: All Items

**New Condition**

Name: State Abbr = 'KY'

☒ Generate name automatically

Description:

Location:

Formula

Item	Condition	Value(s)
State Abbr	=	'KY'

☐ Match case

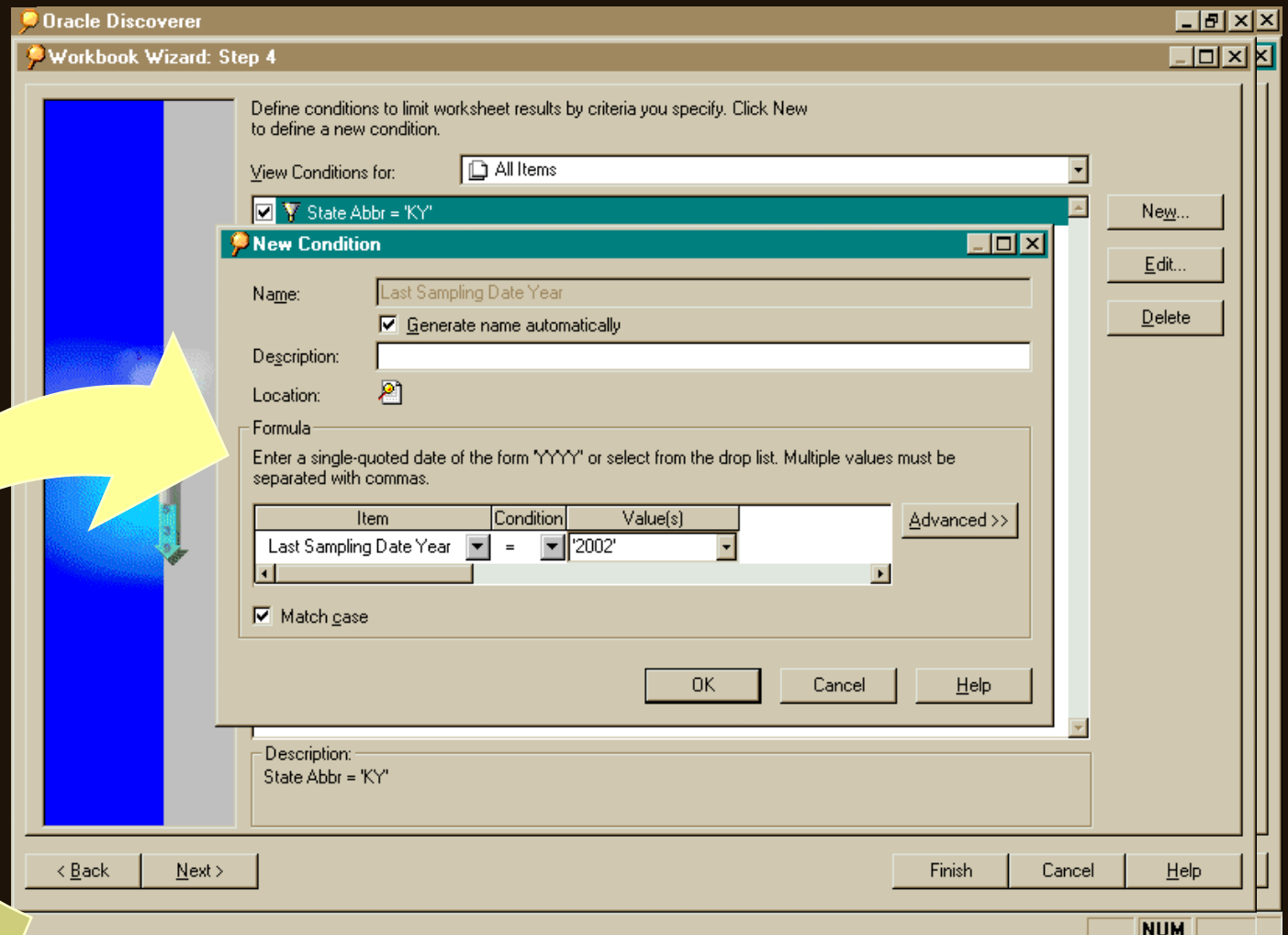
OK Cancel Help

< Back Next > Finish Cancel Help

NUM

# Building your own worksheet, cont'd

Create as many conditions as needed.



Oracle Discoverer  
Workbook Wizard: Step 4

Define conditions to limit worksheet results by criteria you specify. Click New to define a new condition.

View Conditions for:

☒ State Abbr = 'KY'

**New Condition**

Name:   
☒ Generate name automatically

Description:

Location:

Formula  
Enter a single-quoted date of the form 'YYYY' or select from the drop list. Multiple values must be separated with commas.

Item	Condition	Value(s)
Last Sampling Date Year	=	'2002'

☒ Match case

OK Cancel Help

Finish Cancel Help

NUM

Watch for hints on formatting the value of the item.



# Building your own worksheet, cont'd

Add  
any  
sort  
orders.

Oracle Discoverer

Workbook Wizard: Step 5

Define a sort to organize the results in your worksheet by guidelines you specify. Click Add to add a new sort.

	Column	Direction	Group	Line	Spaces
1	State-County-Site-Param-POC	Lo to Hi	None	---	---

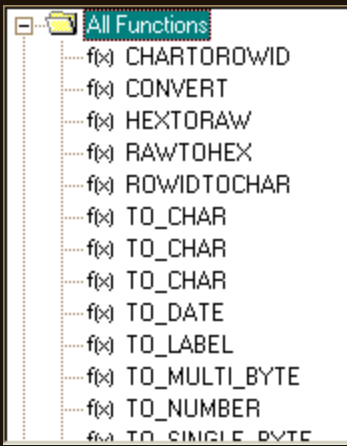
Add ▼ Delete Move Up Move Down

< Back Next > Finish Cancel Help

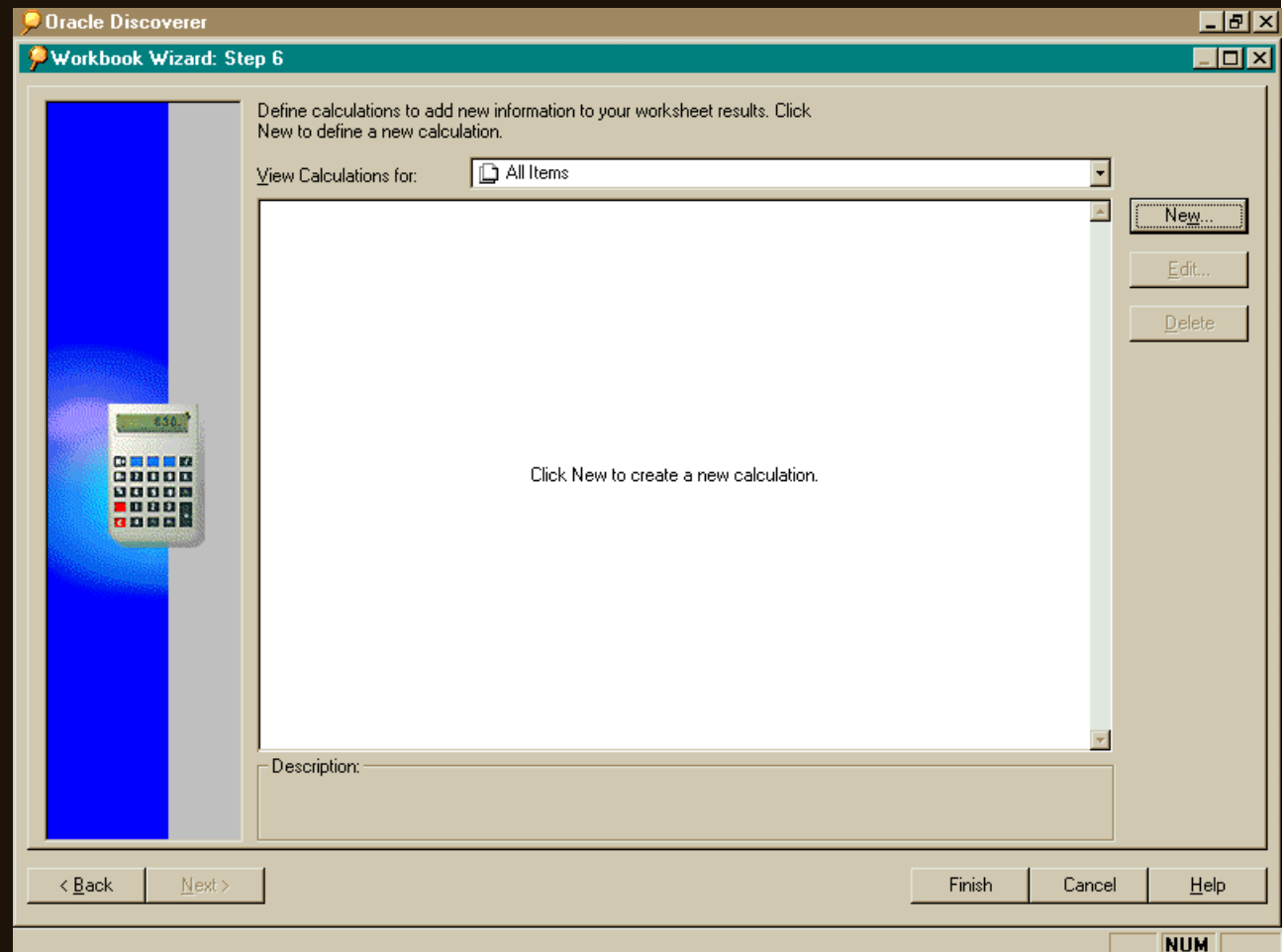
NUM

# Building your own worksheet, cont'd

Do you need  
to do any  
calculations?.



Discoverer  
offers lots of  
them.



# Building your own worksheet, cont'd

Finished?

If you don't like the layout, you can change it while viewing the results.

Oracle Discoverer - [Workbook1]

File Edit View Sheet Format Tools Graph Window Help

Air Quality System: Sheet 1  
State Abbr = 'KY', Last Sampling Date Year = '2002'  
14 JUN-02 08.27.01 PM

Page Items: EPA Region Code: 04

	Monitor ID	Parameter Desc	Screening Group Name	Last Sampling Date	Last Raw Data Post Date	State Code
1	21-013-0002-44201-1	Ozone	KENTUCKY	31-MAR-2002	15-MAY-2002	21
2	21-013-0002-61101-1	WIND SPEED	KENTUCKY	31-MAR-2002	16-MAY-2002	21
3	21-013-0002-61102-1	WIND DIRECTION	KENTUCKY	31-MAR-2002	16-MAY-2002	21
4	21-013-0002-62101-1	OUTDOOR TEMP	KENTUCKY	14-MAR-2002	30-MAY-2002	21
5	21-013-0002-68101-1	Sample Flow Rate	KENTUCKY	25-FEB-2002	30-MAY-2002	21
6	21-013-0002-68102-1	Sample Volume	KENTUCKY	25-FEB-2002	30-MAY-2002	21
7	21-013-0002-68103-1	Ambient Min Temp	KENTUCKY	25-FEB-2002	30-MAY-2002	21
8	21-013-0002-68104-1	Ambient Max Temp	KENTUCKY	25-FEB-2002	30-MAY-2002	21
9	21-013-0002-68105-1	Ambient Avg Temp	KENTUCKY	25-FEB-2002	30-MAY-2002	21
10	21-013-0002-68106-1	Sample Min Bar	KENTUCKY	25-FEB-2002	30-MAY-2002	21
11	21-013-0002-68107-1	Sample Max Bar	KENTUCKY	25-FEB-2002	30-MAY-2002	21
12	21-013-0002-68108-1	Sample Avg Bar	KENTUCKY	25-FEB-2002	30-MAY-2002	21
13	21-013-0002-68109-1	Elapsed Sample	KENTUCKY	25-FEB-2002	30-MAY-2002	21
14	21-013-0002-81102-1	PM10 Total 0-10u	KENTUCKY	25-FEB-2002	30-MAY-2002	21
15	21-013-0002-88101-1	PM2.5 - Local Co	KENTUCKY	25-FEB-2002	30-MAY-2002	21

NUM

# Building your own worksheet, cont'd

Group  
Sort on  
Screening  
Group?

Oracle Discoverer - [Workbook1]

File Edit View Sheet Format Tools Graph Window Help

Air Quality System: Sheet 1  
State Abbr = 'KY', Last Sampling Date Year = '2002'  
14-JUN-02 08.39.28 PM

Page Items: EPA Region Code: 04

	Screening Group Name	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date	State Code
1	KENTUCKY	21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-2002	21
2		21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002	21
3		21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002	21
4		21-013-0002-62101-1	OUTDOOR TEMP	14-MAR-2002	30-MAY-2002	21
5		21-013-0002-68101-1	Sample Flow Rate	25-FEB-2002	30-MAY-2002	21
6		21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-2002	21
7		21-013-0002-68103-1	Ambient Min Temp	25-FEB-2002	30-MAY-2002	21
8		21-013-0002-68104-1	Ambient Max Temp	25-FEB-2002	30-MAY-2002	21
9		21-013-0002-68105-1	Ambient Avg Temp	25-FEB-2002	30-MAY-2002	21
10		21-013-0002-68106-1	Sample Min Baro	25-FEB-2002	30-MAY-2002	21
11		21-013-0002-68107-1	Sample Max Baro	25-FEB-2002	30-MAY-2002	21
12		21-013-0002-68108-1	Sample Avg Baro	25-FEB-2002	30-MAY-2002	21
13		21-013-0002-68109-1	Elapsed Sample	25-FEB-2002	30-MAY-2002	21
14		21-013-0002-81102-1	PM10 Total 0-10	25-FEB-2002	30-MAY-2002	21
15		21-013-0002-88101-1	PM2.5 - Local Co	25-FEB-2002	30-MAY-2002	21

NUM



# Building your own worksheet, cont'd

Remove  
the State  
Code  
column?

Oracle Discoverer - [Workbook1]

File Edit View Sheet Format Tools Graph Window Help

Air Quality System: Sheet 1  
State Abbr = 'KY', Last Sampling Date Year = '2002'  
14-JUN-02 08.31.20 PM

Page Items: EPA Region Code: 04

	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date	State Code	State Abbr
1	21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-2002	21	
2	21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002	21	
3	21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002	21	
4	21-013-0002-62101-1	OUTDOOR TEMP	14-MAR-2002	30-MAY-2002	21	
5	21-013-0002-68101-1	Sample Flow Rate	25-FEB-2002	30-MAY-2002	21	
6	21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-2002	21	
7	21-013-0002-68103-1	Ambient Min Temp	25-FEB-2002	30-MAY-2002	21	
8	21-013-0002-68104-1	Ambient Max Temp	25-FEB-2002	30-MAY-2002	21	
9	21-013-0002-68105-1	Ambient Avg Temp	25-FEB-2002	30-MAY-2002	21	
10	21-013-0002-68106-1	Sample Min Bar	25-FEB-2002	30-MAY-2002	21	
11	21-013-0002-68107-1	Sample Max Bar	25-FEB-2002	30-MAY-2002	21	
12	21-013-0002-68108-1	Sample Avg Bar	25-FEB-2002	30-MAY-2002	21	
13	21-013-0002-68109-1	Elapsed Sample	25-FEB-2002	30-MAY-2002	21	
14	21-013-0002-81102-1	PM10 Total 0-10u	25-FEB-2002	30-MAY-2002	21	KY
15	21-013-0002-88101-1	PM2.5 - Local Co	25-FEB-2002	30-MAY-2002	21	KY

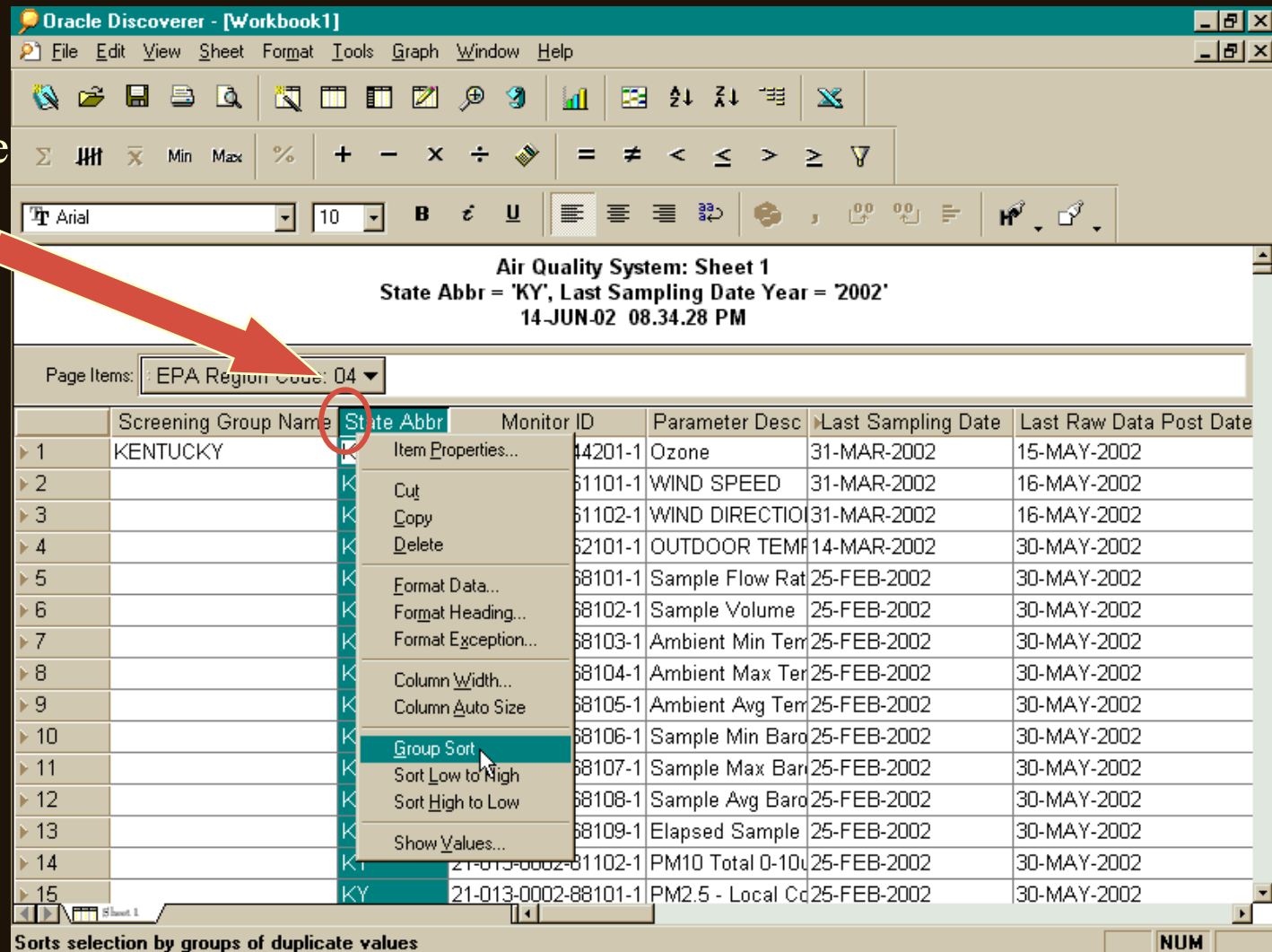
Deletes selected items

NUM

# Building your own worksheet, cont'd

Move the  
State  
Abbrev

Group  
sort on  
it?



Oracle Discoverer - [Workbook1]

File Edit View Sheet Format Tools Graph Window Help

Air Quality System: Sheet 1  
State Abbr = 'KY', Last Sampling Date Year = '2002'  
14-JUN-02 08.34.28 PM

Page Items: EPA Region Code: 04

	Screening Group Name	State Abbr	Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date
1	KENTUCKY		44201-1	Ozone	31-MAR-2002	15-MAY-2002
2		K	61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002
3		K	61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002
4		K	62101-1	OUTDOOR TEMP	14-MAR-2002	30-MAY-2002
5		K	68101-1	Sample Flow Rate	25-FEB-2002	30-MAY-2002
6		K	68102-1	Sample Volume	25-FEB-2002	30-MAY-2002
7		K	68103-1	Ambient Min Temp	25-FEB-2002	30-MAY-2002
8		K	68104-1	Ambient Max Temp	25-FEB-2002	30-MAY-2002
9		K	68105-1	Ambient Avg Temp	25-FEB-2002	30-MAY-2002
10		K	68106-1	Sample Min Bar	25-FEB-2002	30-MAY-2002
11		K	68107-1	Sample Max Bar	25-FEB-2002	30-MAY-2002
12		K	68108-1	Sample Avg Bar	25-FEB-2002	30-MAY-2002
13		K	68109-1	Elapsed Sample	25-FEB-2002	30-MAY-2002
14		K	21-013-0002-61102-1	PM10 Total 0-10	25-FEB-2002	30-MAY-2002
15		KY	21-013-0002-88101-1	PM2.5 - Local Co	25-FEB-2002	30-MAY-2002

Sorts selection by groups of duplicate values

NUM

# Building your own worksheet, cont'd

You can also go back and Edit your sheet.

Changes you made while viewing the results will show up.

The screenshot shows the Oracle Discoverer application window titled 'Oracle Discoverer - [Workbook1]'. The menu bar includes File, Edit, View, Sheet, Format, Tools, Graph, Window, and Help. The 'Sheet' menu is open, displaying options: New Sheet..., Edit Sheet... (highlighted), Duplicate as Table..., Duplicate as Crosstab..., Rename Sheet..., Delete Sheet, Edit Title..., Drill..., Collapse, Edit Parameter Values..., Refresh Sheet, Retrieve All Rows, and Count All Rows... The main window displays a worksheet titled 'Air Quality System: Sheet 1' with the subtitle 'Abbr = 'KY', Last Sampling Date Year = '2002'' and a timestamp '14-JUN-02 08.53.14 PM'. Below the title is a table with the following data:

Monitor ID	Parameter Desc	Last Sampling Date	Last Raw Data Post Date
21-013-0002-44201-1	Ozone	31-MAR-2002	15-MAY-2002
21-013-0002-61101-1	WIND SPEED	31-MAR-2002	16-MAY-2002
21-013-0002-61102-1	WIND DIRECTION	31-MAR-2002	16-MAY-2002
21-013-0002-62101-1	OUTDOOR TEMP	14-MAR-2002	30-MAY-2002
21-013-0002-68101-1	Sample Flow Rate	25-FEB-2002	30-MAY-2002
21-013-0002-68102-1	Sample Volume	25-FEB-2002	30-MAY-2002
21-013-0002-68103-1	Ambient Min Temp	25-FEB-2002	30-MAY-2002
21-013-0002-68104-1	Ambient Max Temp	25-FEB-2002	30-MAY-2002
21-013-0002-68105-1	Ambient Avg Temp	25-FEB-2002	30-MAY-2002
21-013-0002-68106-1	Sample Min Bar	25-FEB-2002	30-MAY-2002
21-013-0002-68107-1	Sample Max Bar	25-FEB-2002	30-MAY-2002
21-013-0002-68108-1	Sample Avg Bar	25-FEB-2002	30-MAY-2002
21-013-0002-68109-1	Elapsed Sample	25-FEB-2002	30-MAY-2002
21-013-0002-81102-1	PM10 Total 0-10	25-FEB-2002	30-MAY-2002
21-013-0002-88101-1	PM2.5 - Local Co	25-FEB-2002	30-MAY-2002

The status bar at the bottom indicates 'Edits current sheet' and 'NUM'.



# Building your own worksheet, cont'd

Here you see the result of the changes to the sort.

Oracle Discoverer - [Workbook1]

Edit Sheet

Select Items | Table Layout | Conditions | **Sort** | Calculations

Define a sort to organize the results in your worksheet by guidelines you specify. Click Add to add a new sort.

	Column	Direction	Group	Line	Spaces
1	State Abbr	Lo to Hi	Group Sort	1	0
2	Screening Group Name	Lo to Hi	Group Sort	1	0
3	State-County-Site-Param-POC	Lo to Hi	None	---	---

Add Delete Move Up Move Down

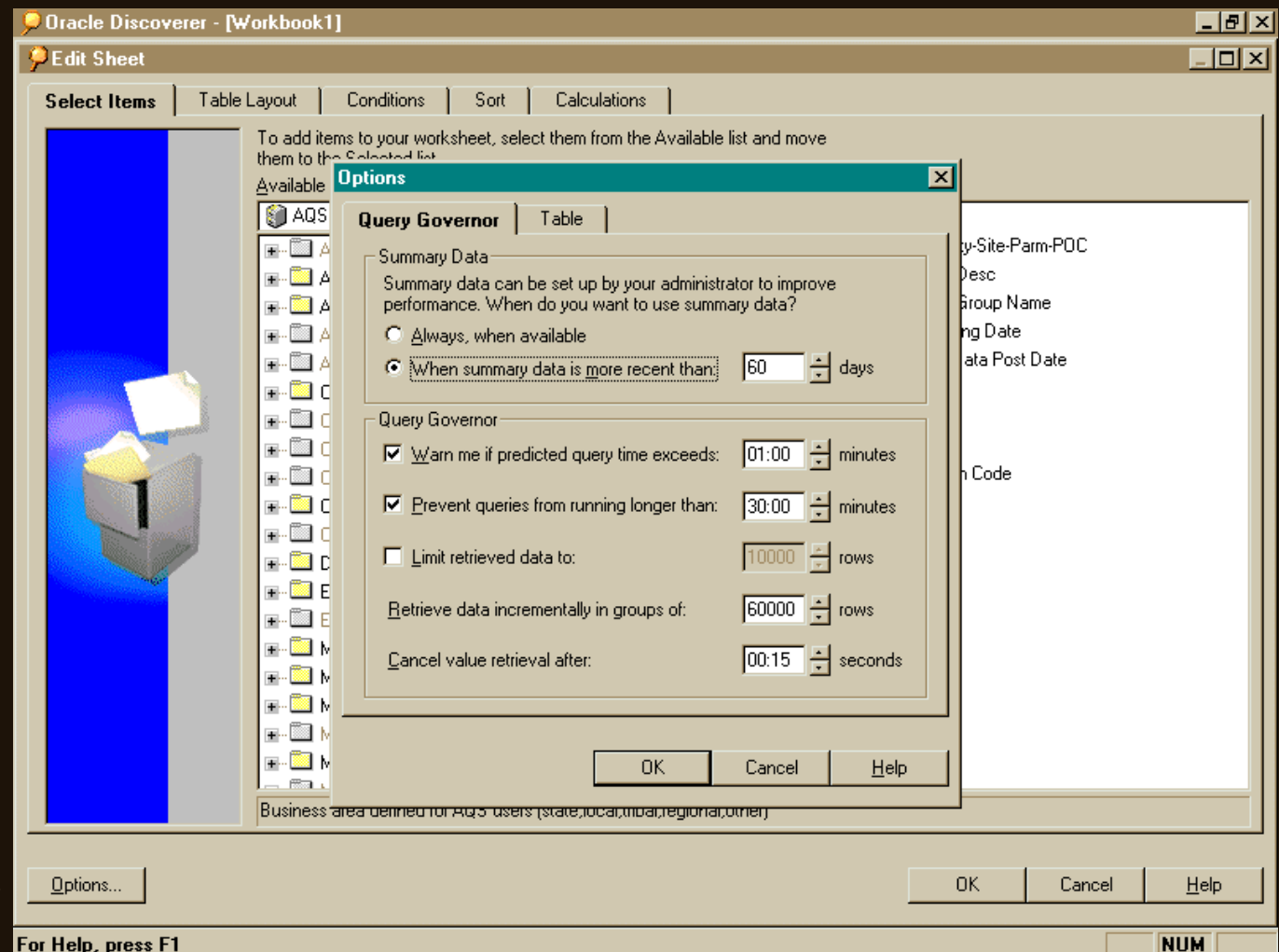
Options... OK Cancel Help

For Help, press F1 NUM



# Building your own worksheet, cont'd

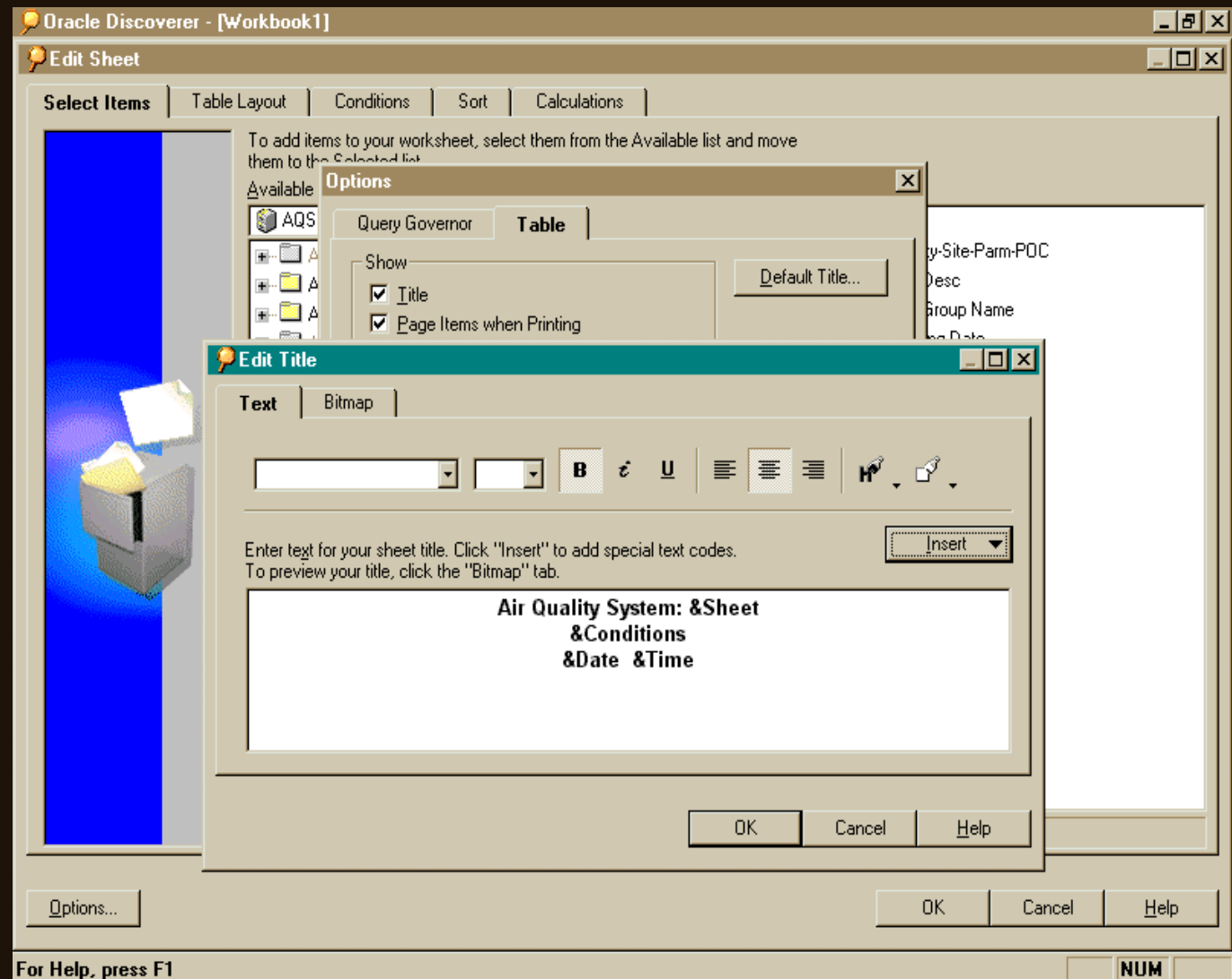
Controlling  
your  
queries -  
Options



# Building your own worksheet, cont'd

How did the Title get there?

A default title may be set up all worksheets. Here, it's a mixture of literals and variables.



# Here's an example of a Crosstab

Oracle Discoverer - [GSJ.AQS\_MOnthly\_#\_observations.dis]

File Edit View Sheet Format Tools Graph Window Help

Σ IIII X Min Max % + - x ÷ = ≠ < ≤ > ≥ ∇

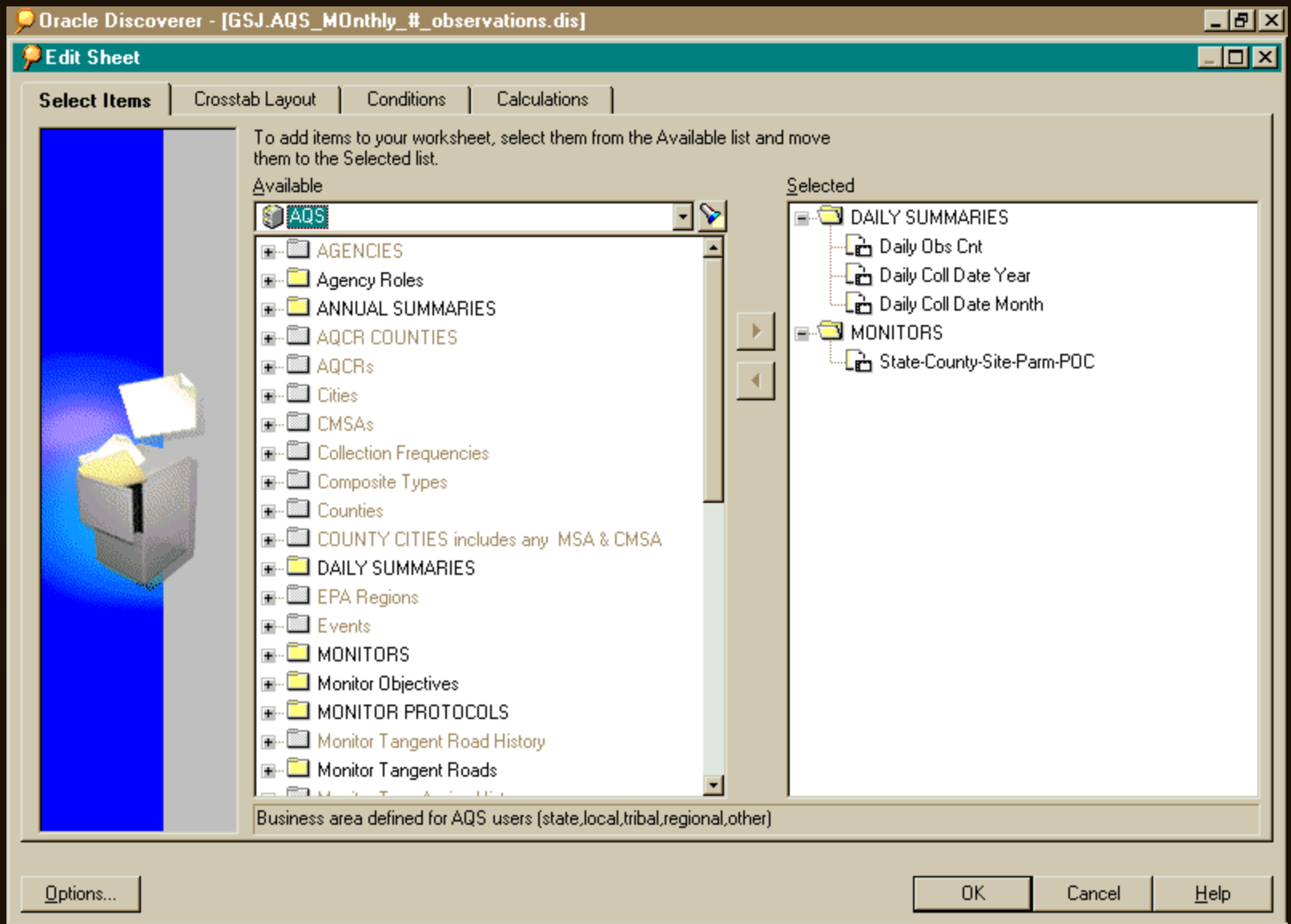
Arial 10 B i U

Page Items: Daily Coll Date Year: 2001

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt	Obs Cnt
21-013-0002-44201-1			742	718	739	718	741	738	716	696	
21-015-0003-44201-1			738	718	742	714	724	741	717	741	
21-019-0015-44201-1			742	717	742	718	739	463			
21-019-0017-44201-1								385	718	739	
21-029-0006-44201-1			739	717	713	715	724	741	718	740	
21-037-0003-44201-1			737	715	742	589	732	740	716	740	
21-043-0500-44201-1			740	716	730	716	738	742	718	740	
21-047-0006-44201-1			741	719	736	715	741	740	718	739	
21-059-0005-44201-1			740	718	744	718	715	686	718	736	
21-061-0501-44201-1	681	641	711	681	705	675	703	697	684	708	683
21-067-0001-44201-1			742	717	742	709	546	742	683	740	
21-067-0012-44201-1			741	709	738	718	741	740	715	739	
21-083-0003-44201-1			743	719	737	718	742	743	694	739	
21-089-0007-44201-1			706	704	741	718	741	740	718	739	
21-091-0012-44201-1			740	717	739	717	743	743	528	741	
21-093-0006-44201-1			741	718	741	718	737	672	718	739	
21-101-0010-44201-1			742	718	742	718	741	741	718	739	

NUM

# ...and how it was created.





# Crosstab, cont'd

Oracle Discoverer - [GSJ.AQS\_MOnthly\_#\_observations.dis]

Edit Sheet

Select Items | **Crosstab Layout** | Conditions | Calculations

To change the layout of items in your worksheet, click and drag them to the desired location.

☒ Show Page Items

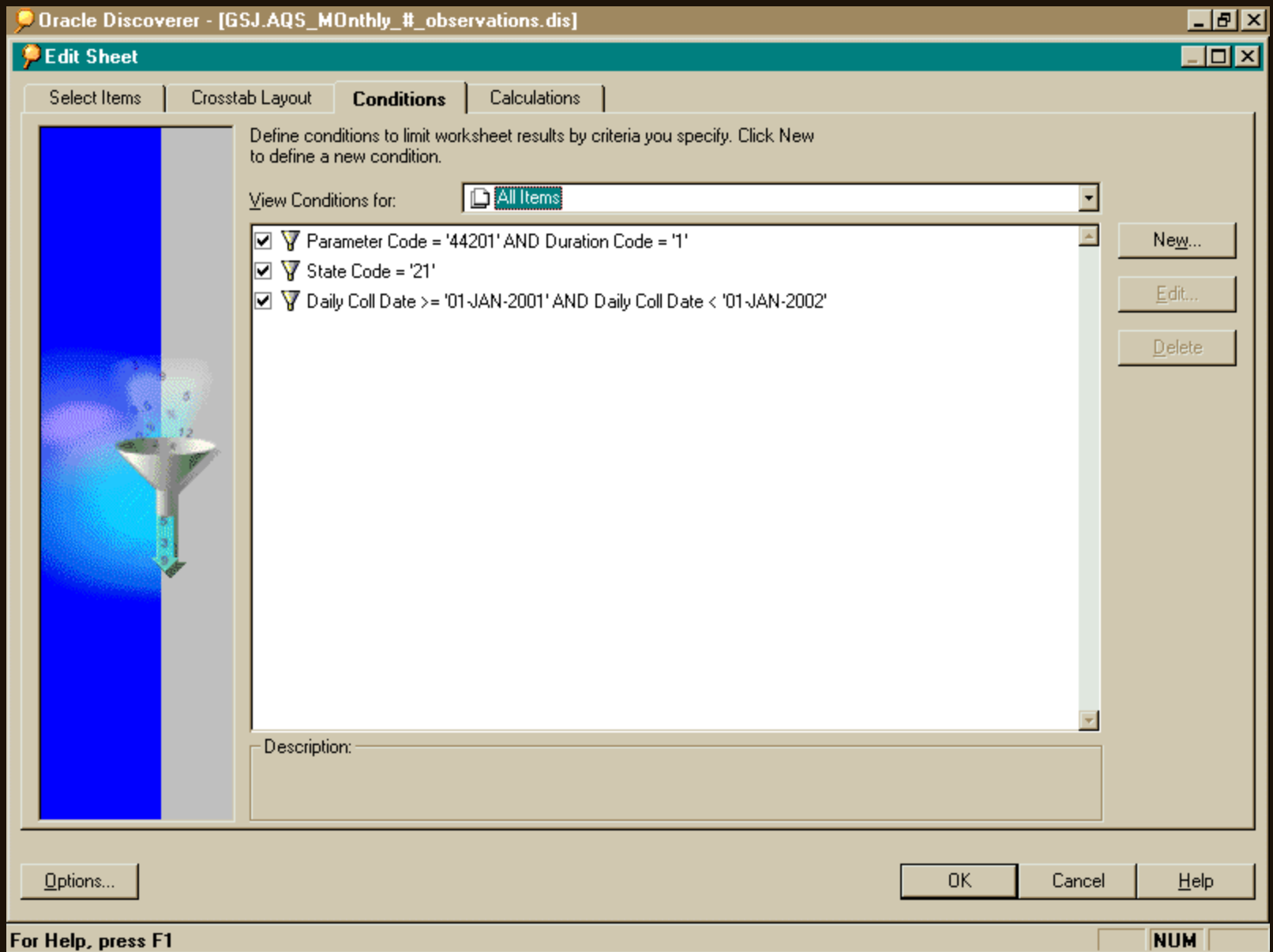
Page Items: : Daily Coll Date Year

	Daily Coll Date Month
State-County-Site-Param-POC	Daily Obs Cnt

Options... OK Cancel Help

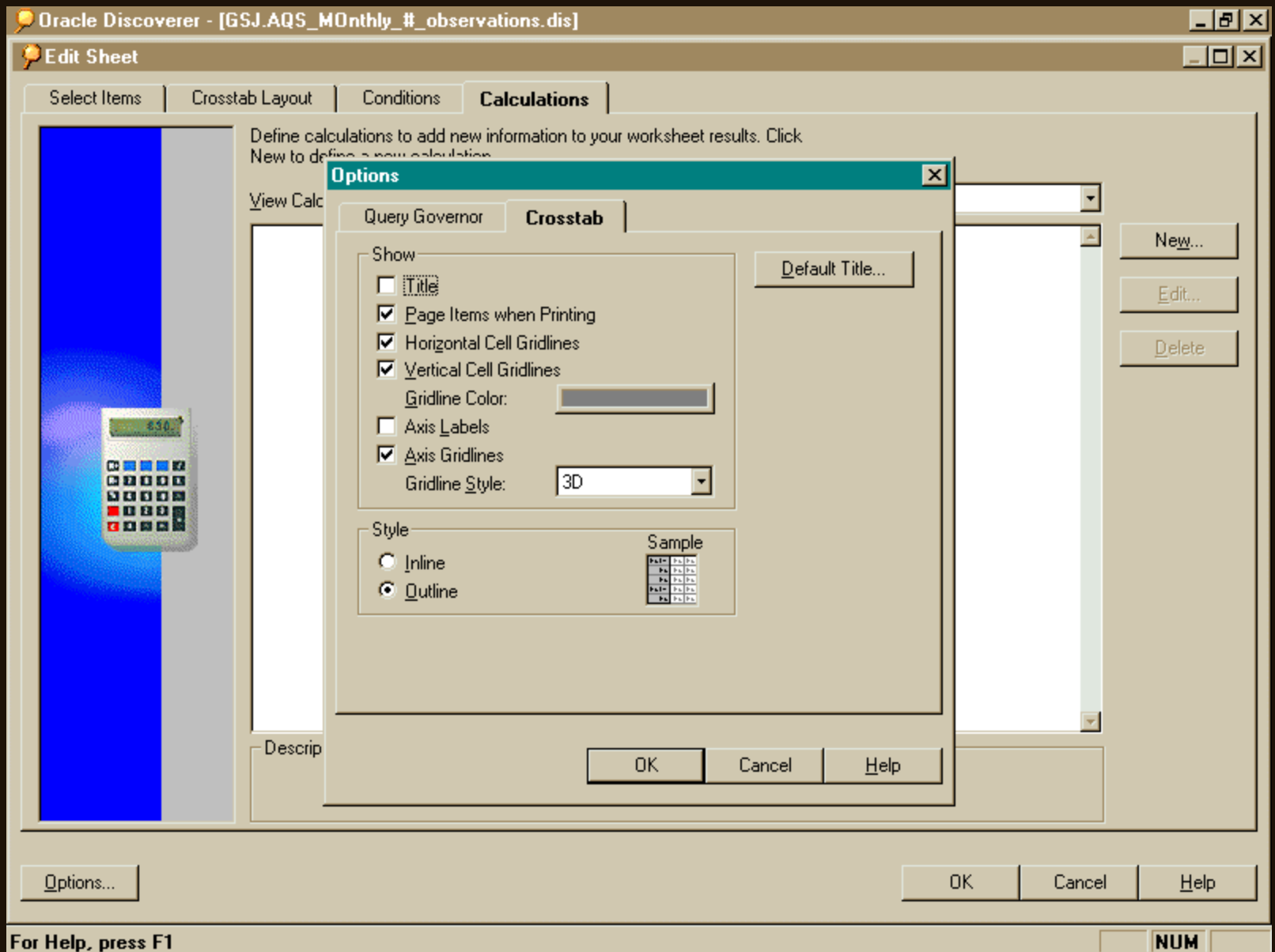
For Help, press F1 NUM

# Crosstab, cont'd




# Crosstab, cont'd

No title on this one – but one could be added.



# Currently in the AQS B/A



- AGENCIES
- Agency Roles
- ANNUAL SUMMARIES
- AQCR COUNTIES
- AQCRs
- Cities
- CMSAs
- Collection Frequencies
- Composite Types
- Counties
- COUNTY CITIES includes any MSA & CMSA
- DAILY SUMMARIES
- EPA Regions
- MONITORS
- Monitor Objectives
- MONITOR PROTOCOLS
- Monitor Tangent Road History
- Monitor Tangent Roads
- Monitor Type Assign History
- Monitor Type Assignments
- MSAs
- NAAQS AVERAGES
- Open Paths
- Parameters
- Probe Locations
- QUARTERLY SUMMARIES
- Req Coll Frequencies
- Sample Periods
- Sampling Methodologies
- SITES
- State Agencies
- States
- SUMMARY MAXIMUMS
- SUMMARY PERCENTILES
- Tangent Roads
- Units
- Urbanized Areas

- ♦ Raw Data is not available
- ♦ All links between folders (tables) have not been established and verified
- ♦ Let us know if you need a folder that is not available (*except for Raw Data*)
- ♦ This B/A is dynamic!



# What would you like to know?



- ◆ How many monitors are owned by your screening group?
- ◆ Which monitors in your state (and or county) had values  $>$  primary standard for the monitor in 2001year?